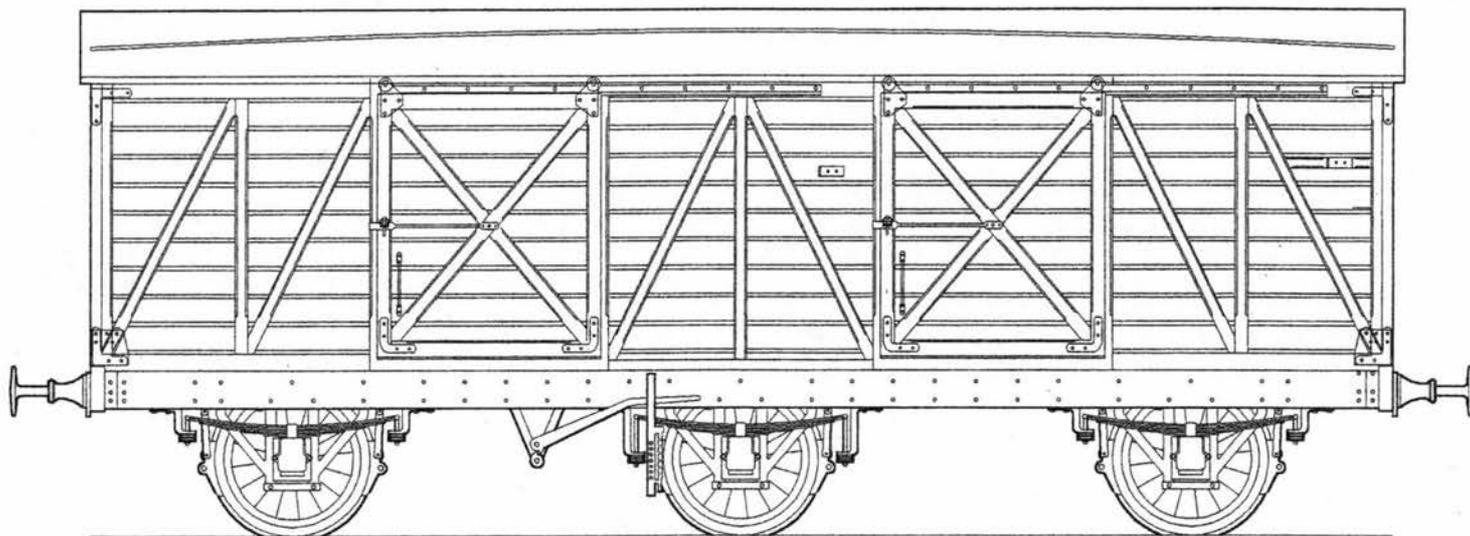


SLATER'S COACH KITS



7C019 MIDLAND 6 WHEEL SLATTED VAN
(to Diagram 1272) scale:7mm/ft

Historical Notes

The subject of our kit is the 30' 5" covered fish/milk van. Due to the perishable nature of the load the vehicles were classed as Non Passenger Coaching Stock, were fitted with 3' 7" wheels and ran at passenger train speeds. Our kit represents the final Midland design for a six wheeled type built to Diagram 1272 in the early 1920s. These vehicles made use of old Midland six wheel coach underframes. Clues to their pedigree are the wooden solebars (with iron plating), the buffer bodies, Mansell disc wheels and the Midland axleboxes.

Our general arrangement drawing actually describes this vehicle as a covered milk truck but according to extracts from the Midland Railway 'Lot records' the Midland built twenty to this design (Lot 942 to Dia.1272) as 30' 5" fish traffic vehicles. A further twenty were built by the LMS (Lot 995). We suspect that the LMS (which inherited these vans in 1923) used them for the conveyance of milk churns and fruit. The LMS already had many four wheel 'fitted' fish vans. By the mid 1930s milk was increasingly being transported in bulk tankers rather than in churns. As a result many of the original Midland six wheel vans were converted back into fish vans, and had their slatted sided boarded up on the inside of the vehicle. In this guise many had extended lives. LMS number 40458 (M.R. 362) was still in use in 1963! The history of these vehicles is interesting because it illustrates how some vehicles were adapted to changes in the traffic carried by the railways.

Known Midland Railway numbers were 95 and 362. In LMS days various numbers from 1755 to 1820 (lot 942), and 766 to 1893 (lot 995) were used. After re-numbering these became 40458 - 40497. Many were dual braked (i.e. Westinghouse and vacuum fitted).

Livery and Lettering Notes

These vehicles were classed as non-passenger carrying coaching stock, and as such, they were painted in a coach livery. The entire vehicle was crimson lake with the exception of the roof in Midland coach grey. On Midland and early LMS vehicles the 'corner' of the outside framing was lined in gold. It is possible that on some LMS built vehicles the lining was done in yellow rather than in gold. Photographs show that the solebars and running gear were painted black. The buffer bodies and the headstocks also appear to be painted black. The roof would, of course, soon weather to a dirty grey.

Photographs of Midland vehicles show the word 'FISH' on the second plank down in the 'X' framing on both doors. The initials 'M.R.' were placed on the second plank up from the bottom on the left door. The running number was placed in the same position on the right hand door. Load ('not to exceed 8 Tons') was painted in the bottom left corner. The LMS vehicles kept the company initials in the same place, but omitted the 'FISH'. Of course there are always exceptions to the rules, so it is best to study photographs if possible.

References and Acknowledgements

As with any model be sure to refer to photographs of your chosen prototype in order to get the details, livery and lettering correct. Some sources of further information are:

'Midland Carriages, An Illustrated Review' by D. Jenkinson and B. Essery (OPC, 1984)
'LMS Standard Coaching Stock' Part 1 by D. Jenkinson and B. Essery (OPC, 1991)

This kit has been prepared from official Midland Railway drawings, measurements of a preserved 6 wheel carriage chassis, and details from various sources.

Assembly Notes

Before starting assembly, read the instructions carefully and identify the various parts. These notes are offered to help you construct an accurate and attractive model.

- ❑ Cut moulded or etched parts from their sprues or frets with a sharp craft knife or piercing saw. Do not break the parts away or use cutters as there will be a high risk of damage to the part. Clean off the remaining pips with a fine file.
- ❑ When folding etched parts have the etched fold line on the inside of the bend (unless otherwise stated). Then reinforce the bend with a fillet of solder.
- ❑ Use liquid polystyrene cement for joining plastic parts; Slater's Mekpak is ideal. Hold the parts together and run Mekpak into the joint using a small paintbrush.
- ❑ Painting is rarely best left until construction is complete. Our instructions indicate stages at which we consider it advisable to paint various components.
- ❑ A piece of plate glass (or mirror) is an ideal surface on which to assemble parts in order to ensure squareness and accuracy.

Parts List

Moulded Parts

Part No.	Description	No. of Sprues	Check
X7C01901	Body side	2	
X7C01902	End and (half) floor	2	
X7C01904	Roof	1	
X7C0117	Solebars (1 pair)	1	
X7C0118	Vacuum cylinder and brake shoes	2	
X7C01919	Springs and axleboxes	2	
71567	Buffer bases	1	

Etched Parts

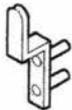
Part No.	Description	No. of Etchings	Check
X7C011	Underframe and brake parts	1	
X7C0191	Brake handle and 'Vee' hangers	1	
X705402	Buffer spring clip	1	

Cast Parts

Part No.	Description	No. of Castings	Check
-	As packed (see illustrations below)	1 (packet)	

Miscellaneous Parts

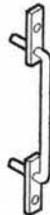
Part No.	Description	Quantity	Check
7124	3'-7" Mansell wheels with bearings	3 axles	
X7C0102	Coach buffer heads	4	
71567	Buffer bodies	4	
X715552	Buffer springs (to be cut to make 4)	2	
7163	Springs (for vacuum hoses)	2	
-	8 BA cheesehead screws	2	
1213	0.020" (0.5mm) brass wire x 12"	2	
1214	0.030" (0.75mm) brass wire x 6"	3	
-	0.020" (0.5mm) piano wire x 7"	2	
1009	0.030" x 0.030" Microstrip	4	



C1 lamp iron
(ends) x (4)



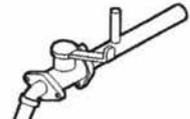
C2 door locking bar
(side doors) x (4)



C3 grab
handle x (4)



C4 vacuum
pipe x (2)



C5 steam heating
pipe x (2)

ASSEMBLING THE FLOOR & BODY

Take the two halves of the floor moulding and glue them together as shown in figure 1. Work on a flat surface when assembling the floor. Leave the floor to one side to dry. Move on to figure 2 and prepare the ends of the vehicle.

Figure 1 shows the under side of the floor!

Fig 1

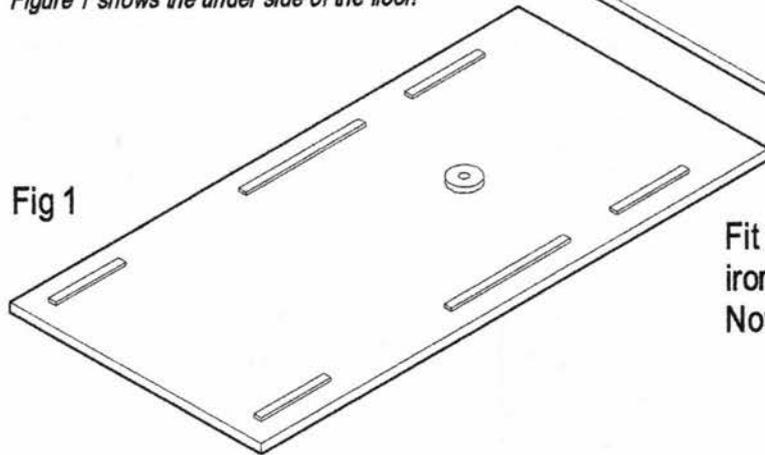
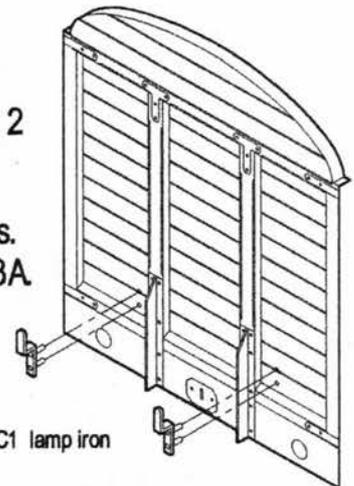
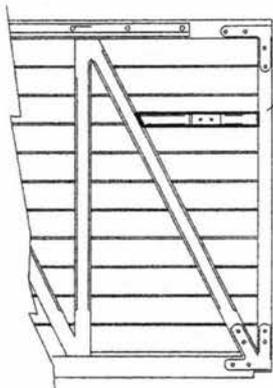


Fig 2

Fit the two cast lamp irons (C1) to the ends. Now proceed to Fig 3A.



door stop moulding



Note the single corner pillar as on original vehicles. Contrast this with the pillar in fig 3B.

Fig 3A

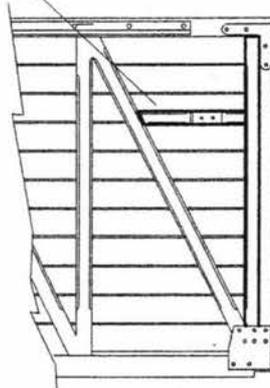


Fig 3B later style corner plate (etched part 17).

Some of the later vehicles had re-enforced corner pillars. Fit the four additional moulded pillars as Fig 3B. The 'door stop' moulding needs trimming to fit. Also with this version, file off the moulded corner plate (lower corners) and replace it with the etched plates (part 17). You can use either the four 'half etched' type or punch your own rivets in the full thickness plates.

additional corner pillar (for later versions).

Early batches of these vehicles had a single corner pillar as shown in figure 3A. The moulded door stop fits at the right hand end of the side moulding as shown. The 'stop' will need to be modified to fit as shown above.

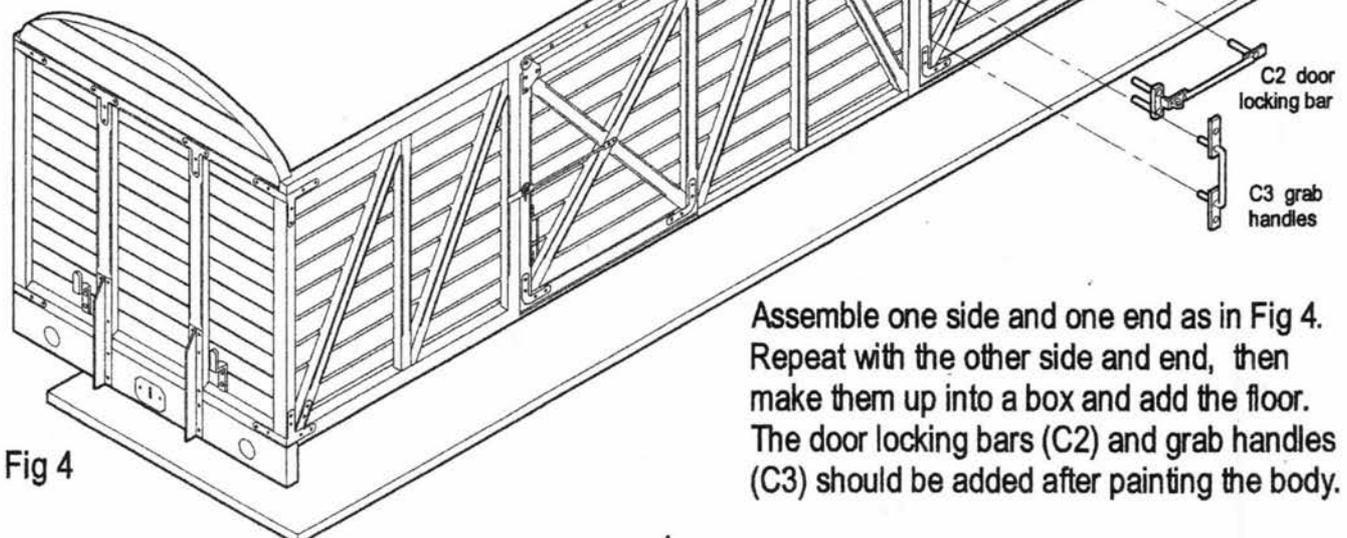


Fig 4

Assemble one side and one end as in Fig 4. Repeat with the other side and end, then make them up into a box and add the floor. The door locking bars (C2) and grab handles (C3) should be added after painting the body.

ASSEMBLING THE UNDERFRAME

Glue the solebars to the floor as in Fig 5. Be sure to get the solebars the correct way up. The arrangement of the rivets on the solebars should appear as in figure 5. Don't forget that you are looking at the the floor 'up side down'. These 'rivets' are actually carriage bolts that secured iron plates to the wooden solebars.

Fit the moulded plastic buffer bases and turned brass buffer bodies at this time.

For clarity the side of the vehicle is not illustrated.

Make sure that the two solebars are square with the floor and are located against the raised ribs on the floor moulding.

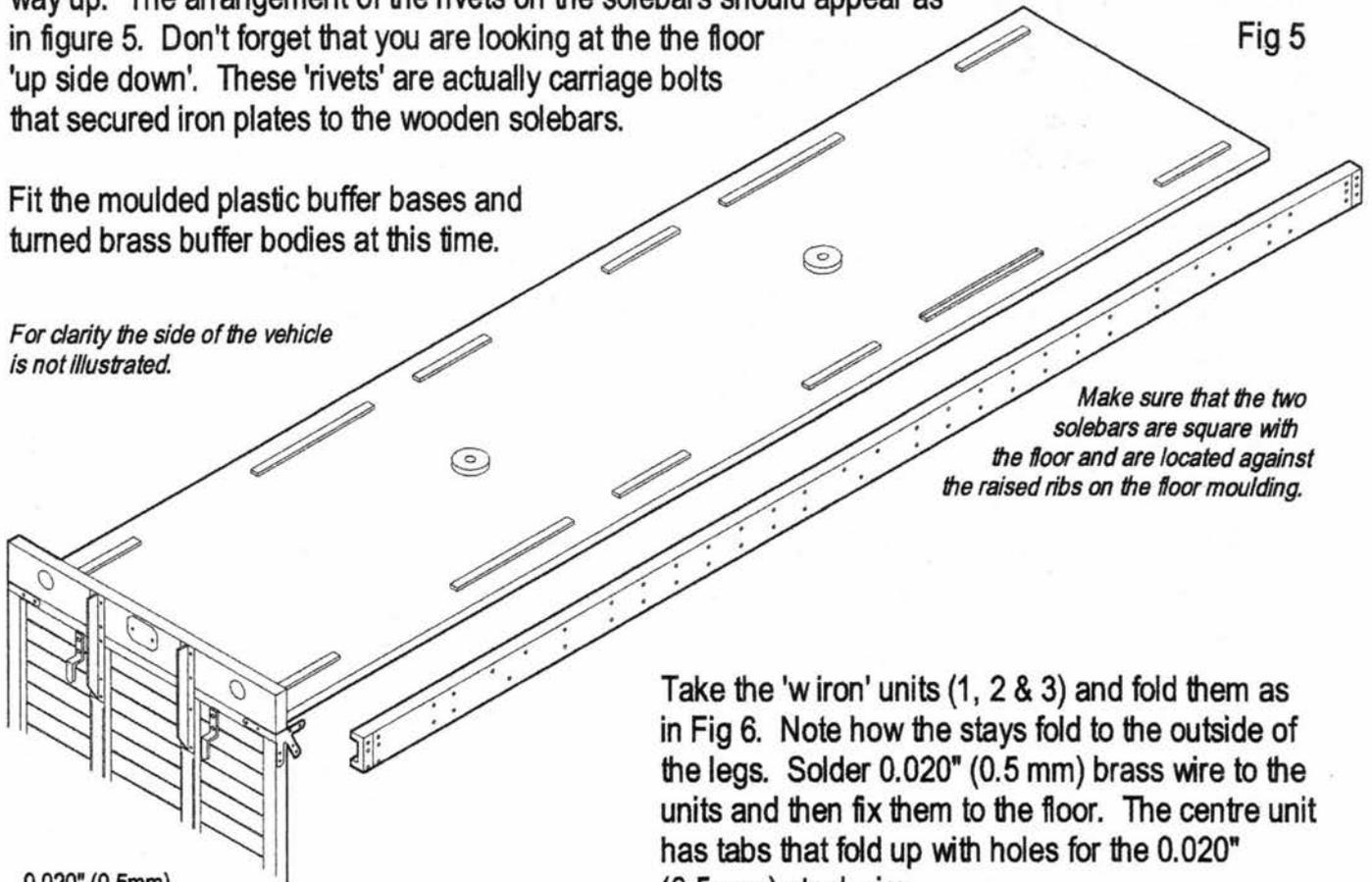


Fig 5

Take the 'w iron' units (1, 2 & 3) and fold them as in Fig 6. Note how the stays fold to the outside of the legs. Solder 0.020" (0.5 mm) brass wire to the units and then fix them to the floor. The centre unit has tabs that fold up with holes for the 0.020" (0.5 mm) steel wire.

0.020" (0.5mm) brass wire

The small 'leg' at each end of the wire should push through etched holes in the unit. Solder the wires in position and clip the ends of the wires flush. Make sure that the other side of the unit is flat so that it will sit on the floor.

0.020" (0.5 mm) brass wire

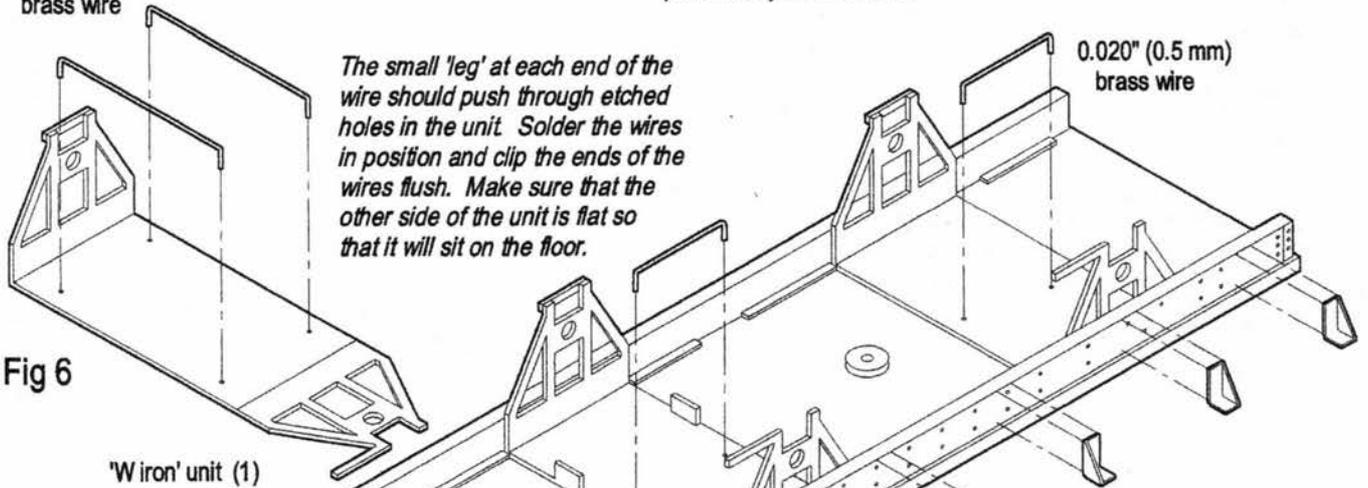


Fig 6

'W iron' unit (1)

Fit moulded solebar brackets to the solebar as shown. They don't appear to be evenly spaced along the vehicle. Use the drawing as a guide to their positions.

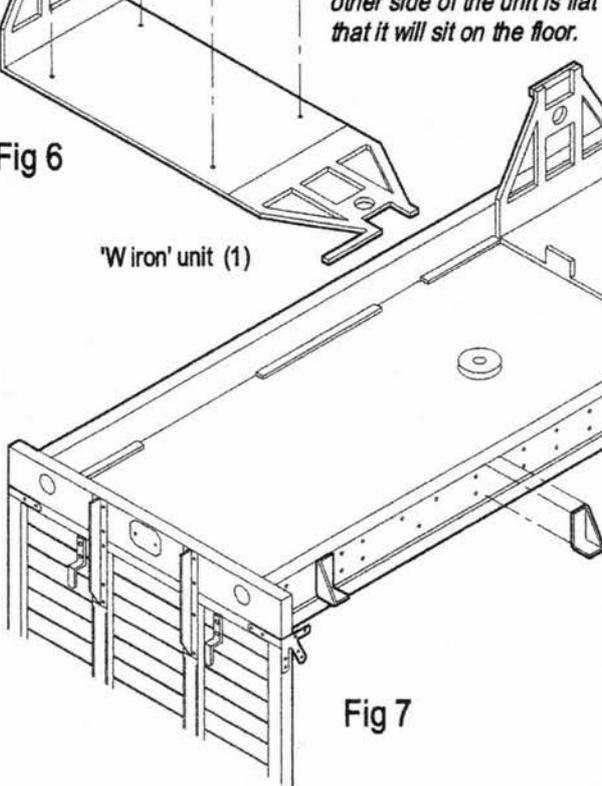


Fig 7

Underframe parts 4, 5 & 6 will carry the wheels and be free to rock on the short lengths of brass wire soldered to the W iron units. This gives the vehicle flexibility to ride over undulations.

THE 'CLEMINSON' SUSPENSION ASSEMBLY

Using 'side cutters' carefully snip off the extended axle points so they are flush with the front face of the wheels. Take the 'inner' parts (4, 5 & 6) of the 'Cleminson' suspension and carefully fold as in fig 8. The wheel sets can be positioned with the bearings sitting in the etched slots. Don't bend the tabs over yet. These will hold the wheels in place when they are finally fitted.

Solder a brake gear bracket (8) into the slot as shown in Fig 8. Note how the ends of the brackets point to the ends of the vehicle.

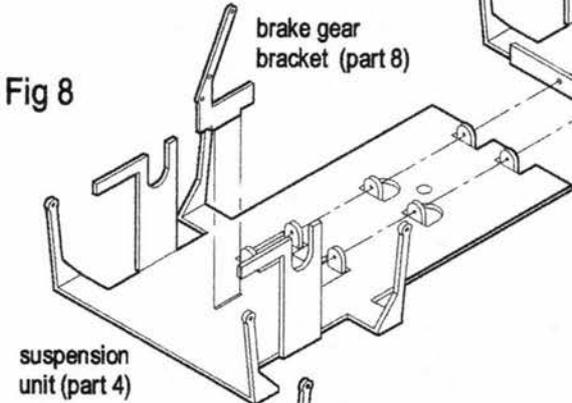
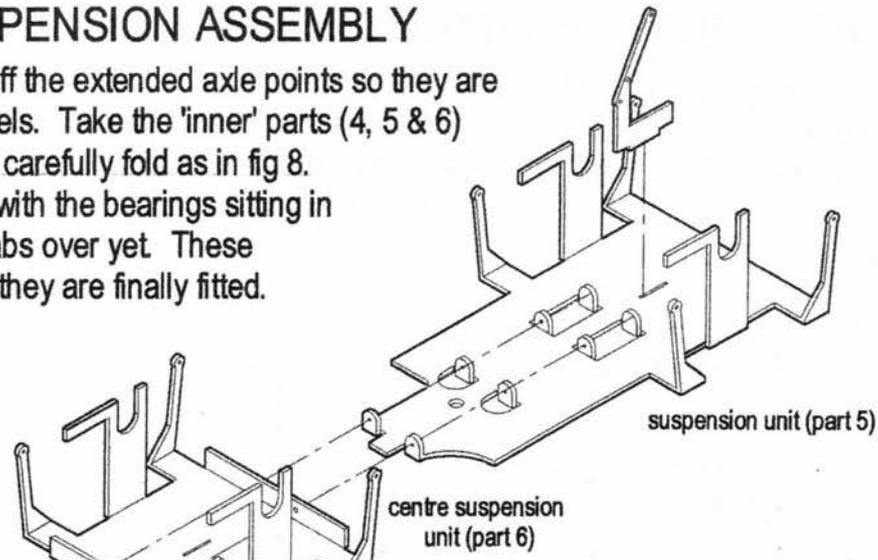


Fig 8



suspension unit (part 4)

centre suspension unit (part 6)

suspension unit (part 5)

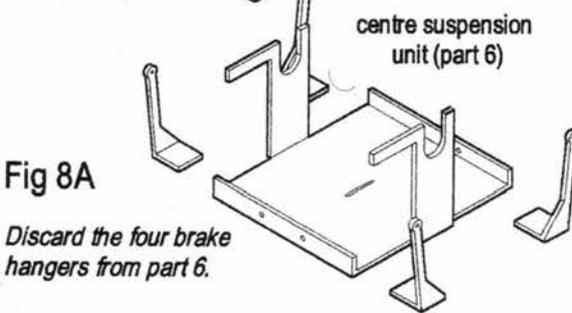


Fig 8A

Discard the four brake hangers from part 6.

Referring to Fig 9 fold up and attach the etched 'Vee hangers' (part 5B) as shown. Assemble the moulded vacuum cylinder and glue it to 5B.

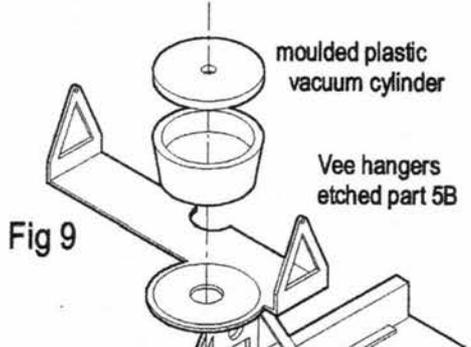
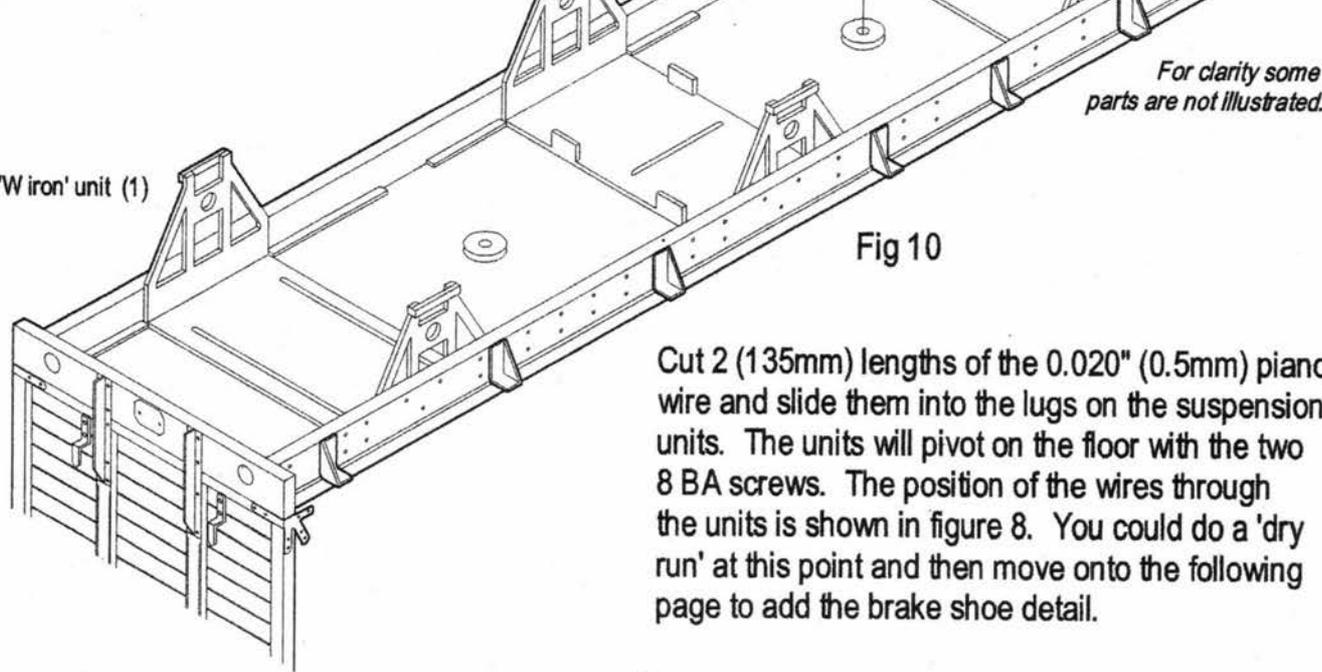


Fig 9

moulded plastic vacuum cylinder

Vee hangers etched part 5B

Most of these vehicles (certainly all those running in LMS) had no brake shoes acting on the centre wheel set. Referring to Fig 8A carefully remove the brake hangers from etched part 6. Discard the four hangers as they are not required.



'Wiron' unit (1)

Fig 10

For clarity some parts are not illustrated.

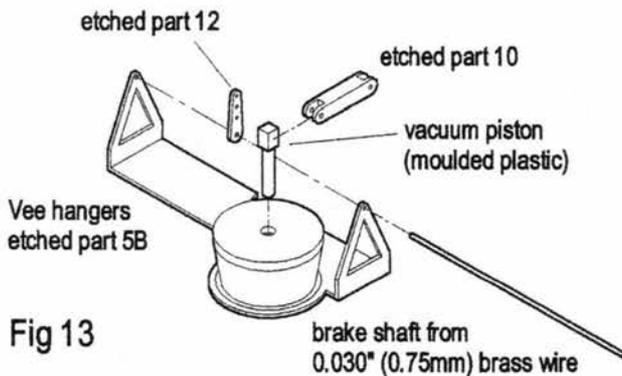
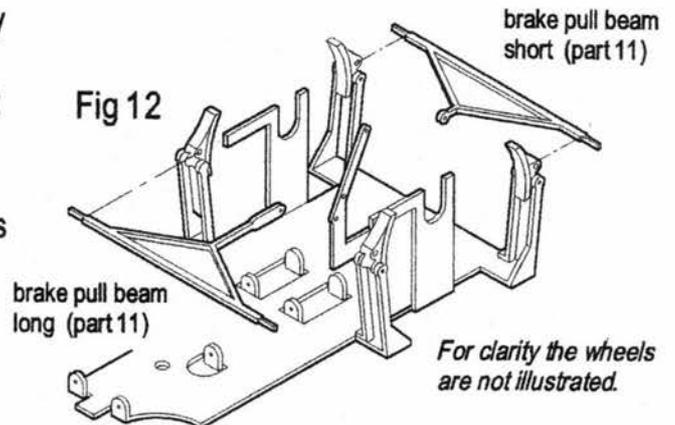
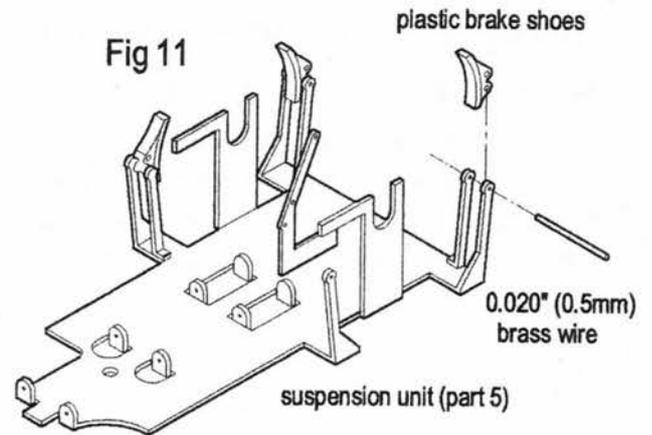
Cut 2 (135mm) lengths of the 0.020" (0.5mm) piano wire and slide them into the lugs on the suspension units. The units will pivot on the floor with the two 8 BA screws. The position of the wires through the units is shown in figure 8. You could do a 'dry run' at this point and then move onto the following page to add the brake shoe detail.

FITTING THE BRAKE GEAR

Take the suspension units (parts 4 and 5) and add the additional brake hangers (etched part 7). This step is best done with a small tipped soldering iron. Refer to the drawing of part 5 shown in figure 11. Use short lengths of 0.020" (0.5mm) brass wire to hold the moulded brake shoes in the hangers. Put the wheel sets in place, align the brake shoes with the tread of the wheels, then carefully glue all the brake shoes.

If you are building a kit of the early Midland Railway vehicle with brakes fitted to the centre wheels you need to add the hangers (part 11) to the centre unit in much the same fashion.

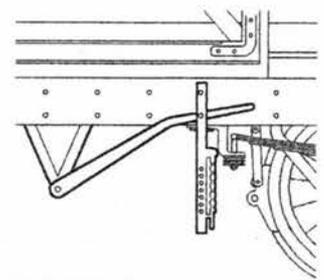
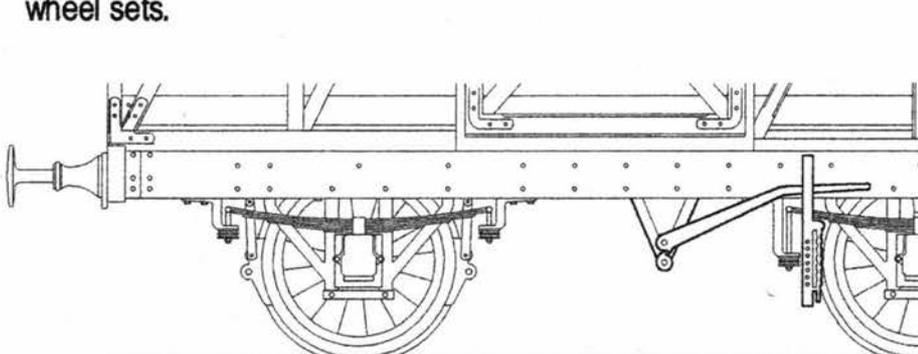
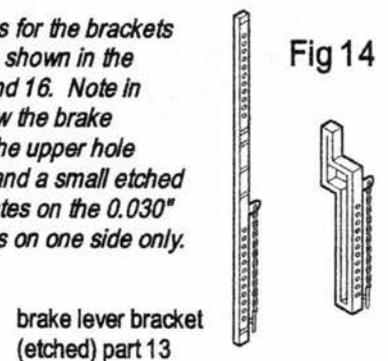
Add the brake pull beams as in figure 12. The ends of the beams need to be twisted as shown before they are linked to the brake gear bracket (part 8). This is a good time to paint the underframe parts, and the wheel sets too, if you wish.



Add the detail to the 'Vee' hangers as in figure 13. The etched parts 10 and 12 pivot on the brass wire. Part 12 should be on the centre line of the vehicle. Use lengths of 0.030" brass wire as pull rods to the brake gear brackets (part 8) at each of the outer wheel sets.

Referring to Fig 14 carefully fold up and attach the etched lever bracket to the solebars. With small parts like this it is a good idea to strengthen the part by putting a small fillet of solder into the folds.

The positions for the brackets (part 13) are shown in the figures 15 and 16. Note in figure 15 how the brake lever fits in the upper hole in the 'Vee' and a small etched 'ratchet' locates on the 0.030" shaft. This is on one side only.

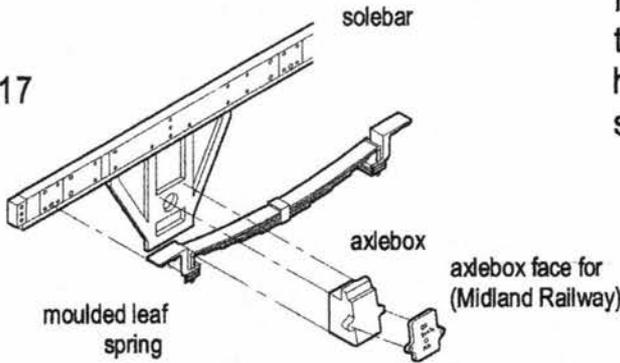


ADDING LEAF SPRINGS, AXLEBOXES & ROOF DETAIL

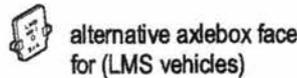
Fit the detail onto the 'W irons' as shown below. Note that on these vehicles the spring hangers on the centre set of wheels are longer than those on the outer wheels. This allowed the middle set of wheels to move side ways to ease the passage of the van through curves.

Add the cast vacuum pipes as mentioned below, one at each end. Many of these vehicles were 'piped through' with a steam heating pipe. Fit the steam pipe connections as shown below. This is a good moment to clean up the body and under-frame and prepare the kit for painting. Notes on the livery are given on page two. The roof, door handles and grab handles mentioned in figure 4 should be fitted after painting the body.

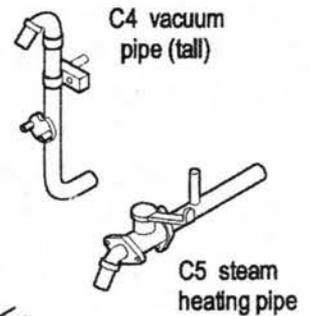
Fig 17



For clarity some parts are not illustrated.



Fit a vacuum pipe to the lower edge of the headstock; positioned 0.25" (6.35mm) to the left of the coupling. The steam heating pipe sits at the same spacing to the right of the coupling.



Add the small buffer spring blocks shown in Fig 17. The steel buffer passes through the buffer body and has a small etched clip (from X705402) glued into the groove. Cut the buffer springs in half and put them between the clip and the moulded blocks.

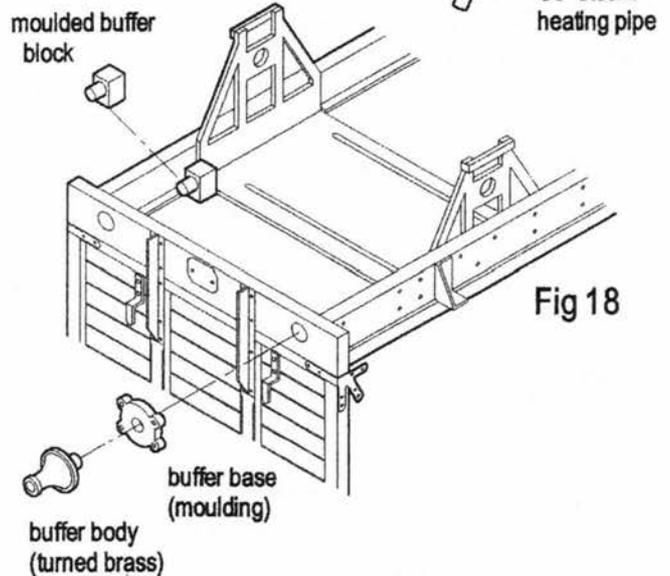
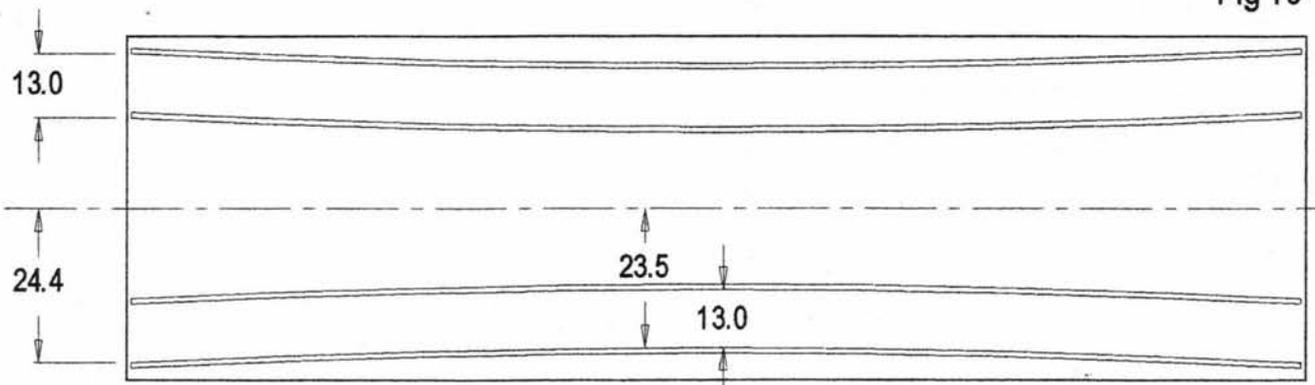


Fig 18

Couplings of your choice should be added at this point. These vehicles were fitted with screw link couplings and we can supply a suitable set, our reference M7023.

Fig 19



Finally, add the rainstrips using the 0.030" x 0.030" microstrip supplied; dimensions are given in Fig 19. Paint the interior if you wish; and perhaps add a load of milk churns. The roof can then be glued to the body. Note that some parts in the etched fret are not used in this kit.